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ABSTRACT OF THE DISCLOSURE

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A high power and long lifetime gas laser device suitably usable in an exposure apparatus is disclosed. The gas laser device includes a chamber for sealingly storing a laser gas therein, a discharging electrode for exciting the laser gas through electric discharging, so that laser light is outputted from the chamber, and a circulating system for circulating the laser gas within the chamber so that the laser gas passing an electric discharging region of the discharging electrode is circulated in the chamber and is returned to the electric discharging region of the discharging electrode, and a control system for controlling the circulating system so that the circulating system provides different gas circulation capacities, being different for an in-operation state in which the laser gas is excited by electric discharging from the discharging electrode and the laser light is outputted and for a stand-by state which differs from the in-operation state but in which laser light can be outputted.

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